



Fact Sheet

California Environmental Protection Agency

 **Air Resources Board**

Asbestos Monitoring at Oak Ridge High School

Why did ARB monitor for asbestos at Oak Ridge High School?

The Air Resources Board (ARB) conducted monitoring for airborne asbestos at the request of El Dorado County Air Quality Management District (EDCAQMD) and the El Dorado Union High School District. The EDCAQMD requested that the ARB monitor while the improvements were made to the soccer fields at Oak Ridge High School to cover the existing asbestos-containing soil to decrease the chance of asbestos fibers being released into the air. The work on the soccer fields and associated monitoring were done June 16, 2003 through July 10, 2003. All fill dirt and aggregates brought in to cover the existing soils were tested and certified to be asbestos-free.

Why was monitoring done at this time?

Monitoring was conducted during the time when there was construction-type activity on the soccer fields because this is the time when the most asbestos fibers would likely be disturbed and could result in the highest airborne concentrations. This was considered a "worst case" scenario with respect to disturbing asbestos.

How many samplers were there and where were they located?

A total of 17 samplers were in place during this time. Thirteen monitors were placed around the perimeter of the soccer fields and also at the basketball and tennis courts on the Oak Ridge campus. Two samplers were on the access road to the upper soccer field and two samplers were located on a near-by residential cul-de-sac.

Were there controls in place during the time of the monitoring to minimize asbestos releases?

Yes. Dust control measures were implemented during the time of work on the soccer fields. As part of the control measure adopted by the ARB to control naturally-occurring asbestos during grading and construction activities, school officials were required to submit a dust mitigation plan to the EDCAQMD and get approval before work could begin.

What were the results of the monitoring?

A total of 224 monitoring samples were collected. Some of the monitors collected 10-hour samples, during the day when most of the activity on the fields was taking place. Other monitors collected 23-hour samples, which represented a daily average concentration. Asbestos concentrations from all samples collected were at least five times below the federal Asbestos Hazard Emergency Response Act (AHERA) level established to declare a school safe for occupation by students after asbestos removal work has been done.

Samples	Average Concentration (structures/cubic centimeter)	Estimated Risk (chances of cancer per million people exposed) (assumes lifetime exposure)
10-hour	0.0010	6
23-hour	0.0005	3
All samples	0.0008	5

The estimated cancer risk is for mesothelioma, a rare cancer associated with past asbestos exposure. The estimated risk is calculated using state approved risk assessment methodologies. The risk assessment methodologies assume that a person is exposed for a lifetime, about 70 years. This should not be interpreted to mean that it is necessary to be exposed to asbestos for 70 years in order to contract asbestos-related cancer. Rather, the potential cancer risk is a high-end estimate of the number of cases in a population of a million people exposed over a lifetime. Short-term exposures may result in lower risk. Therefore, the estimated risks are used as a tool for comparison purposes in understanding the relative amount of risk. For example, many local air districts use a 10 in a million cancer risk in their Hot Spots Program to notify exposed persons of potentially significant risks. Proposition 65 also uses 10 in a million risk as a notification level. To put risk numbers into perspective, the estimated potential cancer risk from air toxics on a statewide average is about 750 chances in a million.

For more information

Visit our web site at <http://www.arb.ca.gov/toxics/asbestos.htm>, or call the ARB's Public Information Office at (916) 322-2990. You may also obtain this document in an alternative format by contacting ARB's ADA Coordinator at (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento area only); or (800) 700-8326 (TDD, outside Sacramento).